REAR SUSPENSION

RS

- 1. General Description
- 2. Wheel Alignment
- 3. Trailing Link
- 4. Rear Lateral Link (front)
- 5. Rear Lateral Link (rear)
- 6. Sub Frame
- 7. Stabilizer
- 8. Upper Arm
- 9. Rear Shock Absorber
- 10. General Diagnostic Table

REAR SUSPENSION > General Description

CAUTION

- When performing service operation, refer to "Repair Contents" in "General Description". Ref. to REPAIR CONTENTS>Repair Contents.
- When performing any work, always wear work clothes, a work cap and protective shoes. Additionally, wear a helmet, protective goggles, etc. if necessary.
- When performing a repair, identify the cause of trouble and avoid unnecessary removal, disassembly and replacement.
- Do not secure a part in a vise directly. Place cushioning materials such as wood blocks, aluminum plates, or waste cloth between the part and the vise.
- Be sure that the surface of brake disc and brake pad is free from grease or oil.
- When performing work on the sensors or modules, be careful of the following.
 - Before disconnecting electrical connectors, be sure to disconnect the ground terminal from the battery sensor. Ref. to REPAIR CONTENTS > NOTE > BATTERY.
 - Do not apply any impact. If the parts are accidentally dropped, replace with a new part.
 - Do not expose to high-temperature and humidity.
- When replacing the parts provided with memory functions, record the memory contents before disconnecting the ground terminal from the battery sensor.
- Some vehicle components are extremely hot immediately after driving. Be wary of receiving burns from heated parts.
- When handling oil or fuel, adhere to the following to prevent unexpected accident.
 - Be careful with fire.
 - Prepare a container to catch grease or oil, etc. If any grease or oil spills, wipe it off and clean immediately to prevent from penetrating into floor or flowing outside.
 - Follow all government and local regulations concerning disposal of refuse when disposing.
- Before starting works, remove dirt and corrosion around the target area.

REAR SUSPENSION > General Description

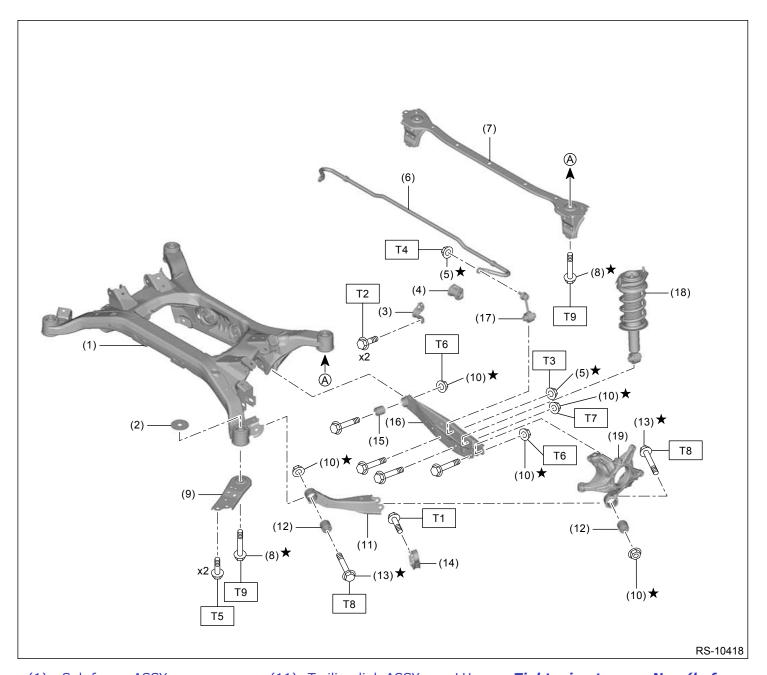
SPECIFICATION

Refer to "General Description" in "FRONT SUSPENSION" section for rear suspension specifications. <u>Ref.</u> to FRONT SUSPENSION>General Description>SPECIFICATION > REAR WHEEL ALIGNMENT (INSPECTION VALUE).

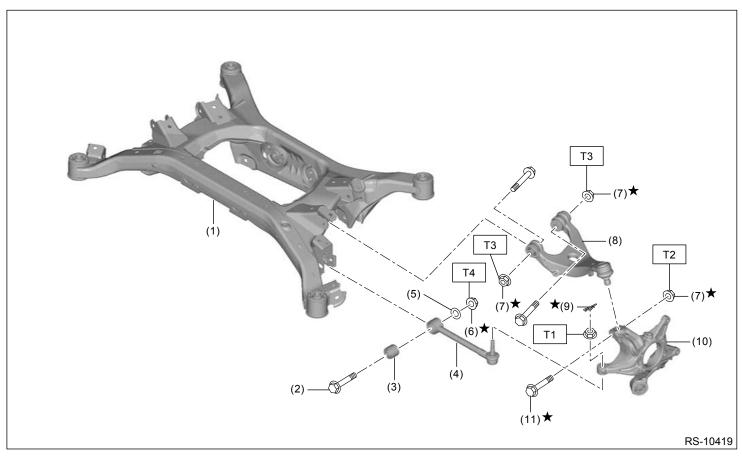
REAR SUSPENSION > General Description

COMPONENT

1. REAR SUSPENSION



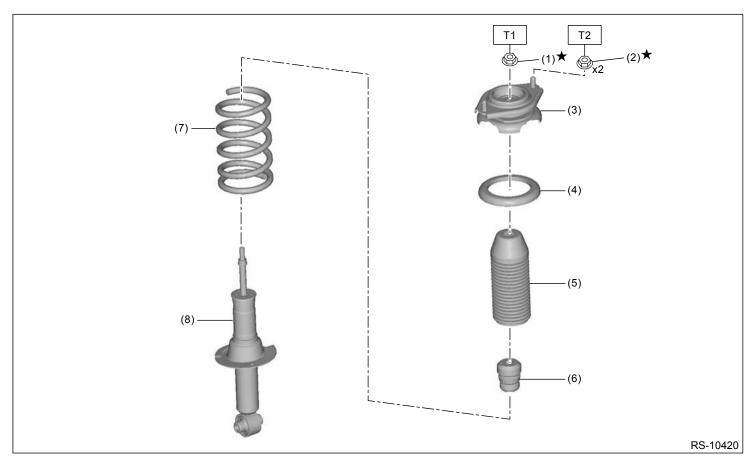
(1)	Sub frame ASSY rear	(11)	Trailing link ASSY rear LH	Tightening torque: N·m (kgf-m, ft-lb)
(2)	Stopper upper	(12)	Rubber bushing trailing link	T1: 18 (1.8, 13.3)
(3)	Clamp stabilizer	(13)	Flange bolt	T2: 30 (3.1, 22.1)
(4)	Rubber bushing stabilizer rear	(14)	Bracket cable guide	T3: 38 (3.9, 28.0)
(5)	Flange nut	(15)	Rubber bushing lateral link	T4: 45 (4.6, 33.2)
			rear	
(6)	Stabilizer rear	(16)	Rear lateral link ASSY rear LH	T5: 70 (7.1, 51.6)
(7)	Support sub frame rear	(17)	Stabilizer link rear	T6: 80 (8.2, 59.0)
(8)	Flange bolt	(18)	Shock absorber ASSY rear LH	T7: 85 (8.7, 62.7)
(9)	Support sub frame front LH	(19)	Rear axle housing LH	T8: 110 (11.2, 81.1)
(10)	Self-locking nut			T9: Ref. to REAR



(1)	Sub frame ASSY rear	(7)	Self-locking nut	Tightening torque: N·m (kgf-m,
				ft-lb)
(2)	Adjusting holt	(8)	Arm ASSY rear upper LH	T1: 60 (6.1, 44.3)

- (3) Rubber bushing lateral link (9) Snap pin **72: 80 (8.2, 59.0)** front
- (4) Rear lateral link ASSY front LH (10) Rear axle housing LH **T3: 90 (9.2, 66.4)**(5) Adjusting washer (11) Flange bolt **T4: 100 (10.2, 73.8)**
- (6) Self-locking nut

2. REAR SHOCK ABSORBER



(1) Self-locking nut

(5) Dust cover rear

Tightening torque: N·m (kgf-m,

ft-lb)

(2) Flange nut

(6) Helper rear

T1: 25 (2.5, 18.4)

(3) Mount shock absorber rear

(7) Coil spring rear

T2: 30 (3.1, 22.1)

(4) Rubber seat rear

(8) Shock absorber COMPL rear

REAR SUSPENSION > General Description

PREPARATION TOOL

1. SUBARU SPECIAL TOOL

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
	20099AE000	INSTALLER & REMOVER	Used for replacing the rubber bushing lateral link front.

ST20099AE000			
ST20099AE010	20099AE010	INSTALLER & REMOVER	Used for replacing the rubber bushing lateral link rear.
ST20099FG000	20099FG000	BUSHING REMOVER	 Used for replacing the rubber bushing trailing link. Used together with base part of INSTALLER & REMOVER (20099PA010).
ST20099PA010	20099PA010	INSTALLER & REMOVER	 Used for replacing the rubber bushing trailing link. Used together with BUSHING REMOVER (20099FG000).
	20399FG000	STRUT MOUNT SOCKET	 Used for disassembling and assembling the shock absorber assembly rear. Used for checking center nut torque of the shock absorber assembly rear.

ST20399FG000			
SSM STSSM4	_	SUBARU SELECT MONITOR 4	Used for setting of each function and troubleshooting for electrical system. Note: For detailed operation procedures, refer to "Help" of application. Used together with interface for Subaru Select Monitor (such as DST-i and DST-010).

2. OTHER

	REMARKS	
Coil spring compressor	Used for disassembling and assembling the shock absorber assembly rear.	
Ball joint puller	Used for disconnecting the rear lateral link assembly front.	
Dial gauge	Used for measuring the runout of shock absorber COMPL rear.	
Magnet stand	Used for measuring the runout of shock absorber COMPL rear.	

REAR SUSPENSION > Wheel Alignment

NOTE

For wheel alignment, measure or adjust the front and rear wheels at a time. Refer to "Wheel Alignment" in "FRONT SUSPENSION" section for measurement and adjustment procedures of wheel alignment.

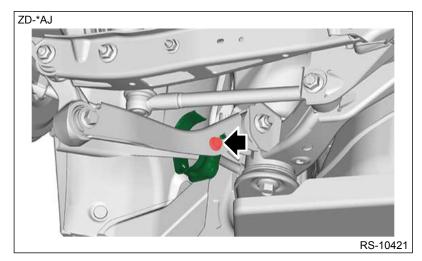
- Inspection: Ref. to FRONT SUSPENSION>Wheel Alignment>INSPECTION.
- Adjustment: Ref. to FRONT SUSPENSION>Wheel Alignment>ADJUSTMENT.

REAR SUSPENSION > Trailing Link

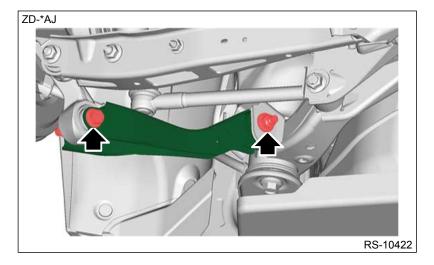
REMOVAL



- 1. Remove the rear wheels. Ref. to WHEEL AND TIRE SYSTEM>Tire and Wheel>REMOVAL.
- 2. Remove the bolts, and then remove the bracket cable guide.



3. Remove the bolts and nuts, and then remove the trailing link assembly rear.



REAR SUSPENSION > Trailing Link

INSTALLATION

Caution:

- For parts which are not reusable, always use new parts.
- Always tighten the bushing in the state where the vehicle is at curb weight and the wheels are in full contact with the ground.
- 1. Before installation, inspect the following items and replace any faulty part with a new one.
 - Check trailing link assembly rear for damage and deformation.

- Check the bushing for abnormal cracks, damage or fatigue.
- 2. Install the trailing link assembly rear.

Caution:

- Housing side: Insert the bolt from the inside of the vehicle.
- Sub frame: Insert the bolt from the outside of the vehicle.
- While holding the nut side, tighten the bolt to the specified torque.

Tightening torque:

110 N·m (11.2 kgf-m, 81.1 ft-lb)

3. Install the bracket cable guide.

Tightening torque:

18 N·m (1.8 kgf-m, 13.3 ft-lb)

- 4. Install the rear wheels. Ref. to WHEEL AND TIRE SYSTEM>Tire and Wheel>INSTALLATION.
- **5.** Inspect the wheel alignment and adjust if necessary.
 - Inspection: Ref. to FRONT SUSPENSION>Wheel Alignment>INSPECTION.
 - Adjustment: Ref. to FRONT SUSPENSION>Wheel Alignment>ADJUSTMENT.
- **6.** Perform VSC (VDC) sensor midpoint setting mode. Ref. to VEHICLE STABILITY CONTROL>VSC (VDC) Control Module and Hydraulic Control Unit (VSCCM&H/U)>ADJUSTMENT > VSC (VDC) SENSOR MIDPOINT SETTING MODE.

REAR SUSPENSION > Trailing Link

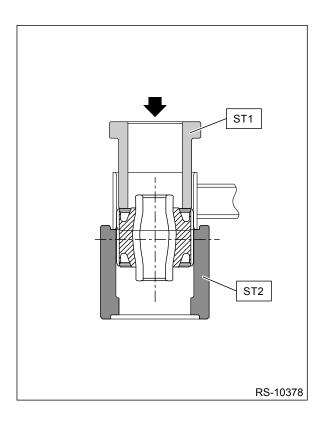
DISASSEMBLY



Remove the rubber bushing trailing link using ST1 and ST2.

Preparation tool:

ST1: BUSHING REMOVER (20099FG000) ST2: INSTALLER & REMOVER (20099PA010)



REAR SUSPENSION > Trailing Link

ASSEMBLY

- 1. Before assembly, inspect the following items and replace any faulty part with a new one.
 - Check trailing link assembly rear for damage and deformation.
 - Check the bushing for abnormal cracks, damage or fatigue.
- 2. Press-fit the rubber bushing trailing link using ST1 and ST2.

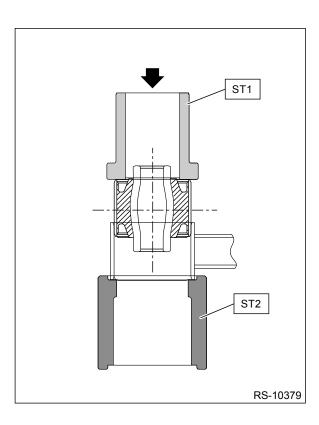
Caution:

Make sure to press the bushing straight in.

Preparation tool:

ST1: BUSHING REMOVER (20099FG000)

ST2: INSTALLER & REMOVER (20099PA010)



REAR SUSPENSION > Rear Lateral Link (front)

REMOVAL



- 1. Remove the rear wheels. Ref. to WHEEL AND TIRE SYSTEM>Tire and Wheel>REMOVAL.
- 2. Remove the trailing link assembly rear. Ref. to REAR SUSPENSION>Trailing Link>REMOVAL.
- **3.** Remove the rear lateral link assembly front.
 - (1) Remove the snap pin (a) and nut (b).
 - (2) Separate the rear axle housing and the ball joint (c) using the ball joint puller (d).

Caution:

- Be careful not to damage the boot of the ball joint.
- Be careful not to damage the peripheral parts.

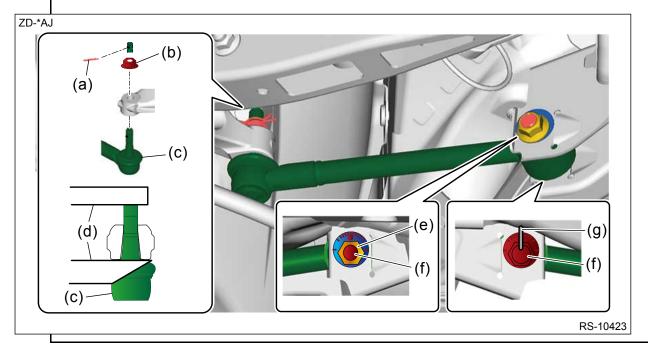
Note:

Securely hook the ball joint puller (d).

- (3) Put alignment marks (g) on the adjusting bolt for the rear lateral link assembly front and on the sub frame assembly rear.
- (4) Remove the adjusting bolt (f), and remove the rear lateral link assembly front.

Caution:

When removing the adjusting bolt (f), make sure to fix the bolt side in place and loosen the nut side (e).



REAR SUSPENSION > Rear Lateral Link (front)

INSTALLATION

Caution:

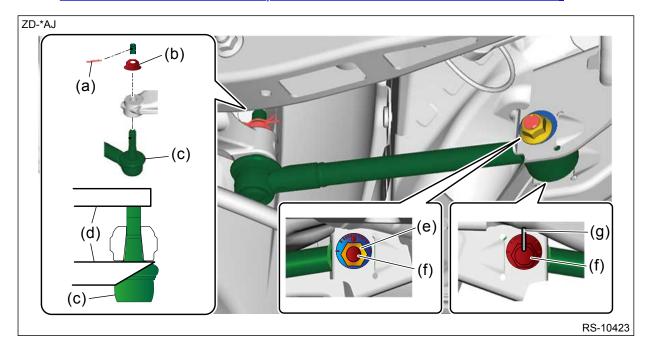
- For parts which are not reusable, always use new parts.
- Always tighten the bushing in the state where the vehicle is at curb weight and the wheels are in full contact with the ground.
- 1. Before installation, inspect the following items and replace any faulty part with a new one.
 - Check the rear lateral link assembly front for damage and deformation.
 - Check the bushing for abnormal cracks, damage or fatigue.
 - Check the boot on the ball joint for abnormal cracks, damage or fatigue.
- **2.** Install the rear lateral link assembly front.

Caution:

- Do not apply grease, etc. to the tapered portion of ball stud.
- When installing the adjusting bolt (f), make sure to fix the bolt side in place and tighten the nut side (e).
- Align alignment marks (g) on the adjusting bolt for the rear lateral link assembly front and on the sub frame.
- Be careful not to damage the boot of the ball joint.

Tightening torque:

Refer to "COMPONENT" of "General Description" for the tightening torque. Ref. to REAR SUSPENSION>General Description>COMPONENT > REAR SUSPENSION.



- 3. Install the trailing link assembly rear. Ref. to REAR SUSPENSION>Trailing Link>INSTALLATION.
- 4. Install the rear wheels. Ref. to WHEEL AND TIRE SYSTEM>Tire and Wheel>INSTALLATION.
- **5.** Inspect the wheel alignment and adjust if necessary.
 - Inspection: Ref. to FRONT SUSPENSION>Wheel Alignment>INSPECTION.
 - Adjustment: Ref. to FRONT SUSPENSION > Wheel Alignment > ADJUSTMENT.
- **6.** Perform VSC (VDC) sensor midpoint setting mode. Ref. to VEHICLE STABILITY CONTROL>VSC (VDC) Control Module and Hydraulic Control Unit (VSCCM&H/U)>ADJUSTMENT > VSC (VDC) SENSOR MIDPOINT SETTING MODE.

REAR SUSPENSION > Rear Lateral Link (front)

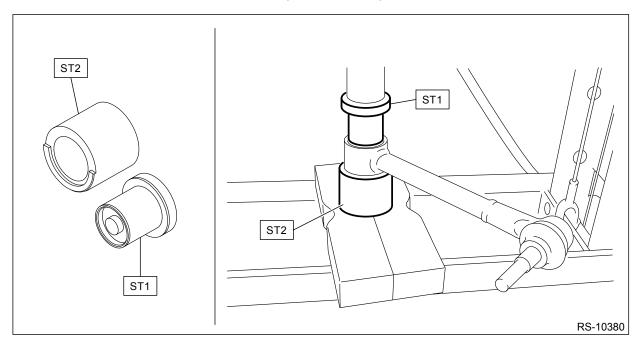
DISASSEMBLY



Remove the rubber bushing lateral link front using ST1 and ST2.

Preparation tool:

ST1 & ST2: INSTALLER & REMOVER (20099AE000)



REAR SUSPENSION > Rear Lateral Link (front)

ASSEMBLY

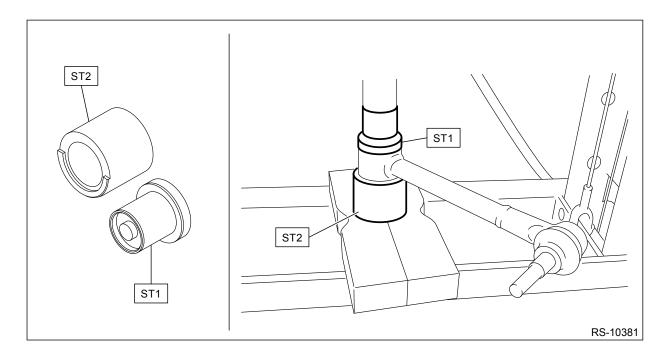
- 1. Before assembly, inspect the following items and replace any faulty part with a new one.
 - Check the rear lateral link assembly front for damage and deformation.
 - Check the bushing for abnormal cracks, damage or fatigue.
 - Check the boot on the ball joint for damage.
- 2. Press-fit the rubber bushing lateral link front using ST1 and ST2.

Caution:

Make sure to press the bushing straight in.

Preparation tool:

ST1 & ST2: INSTALLER & REMOVER (20099AE000)

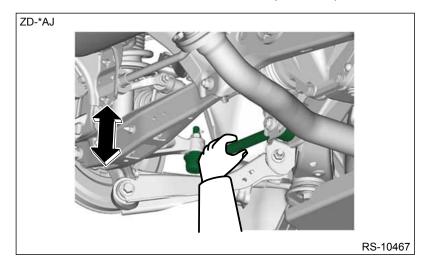


REAR SUSPENSION > Rear Lateral Link (front)

INSPECTION

1. ON THE VEHICLE INSPECTION

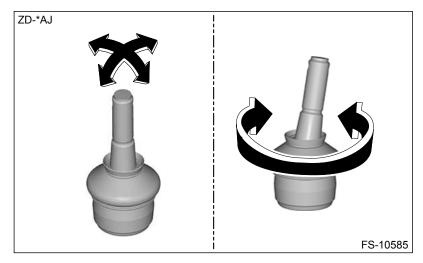
- 1. Check that there is no deformation, cracks or other damages.
- **2.** Check for excessive rusting.
- **3.** Rock the rear lateral link assembly front up and down to check the ball joint for looseness.



4. If fault is found in the inspection, replace the relevant part.

2. UNIT INSPECTION

1. Move the stud as shown in the figure to check that there is no abnormal interference or play.



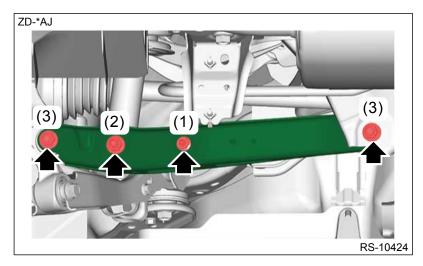
2. If fault is found in the inspection, replace the relevant part.

REAR SUSPENSION > Rear Lateral Link (rear)

REMOVAL



- 1. Remove the rear wheels. Ref. to WHEEL AND TIRE SYSTEM>Tire and Wheel>REMOVAL.
- 2. Remove the rear lateral link assembly rear.
 - (1) Remove the bolts and nuts, and disconnect the stabilizer link rear.
 - (2) Remove the bolts and nuts, and remove the lower side of shock absorber assembly rear.
 - (3) Remove the bolts and nuts, and remove the rear lateral link assembly rear.



REAR SUSPENSION > Rear Lateral Link (rear)

INSTALLATION

Caution:

- For parts which are not reusable, always use new parts.
- Always tighten the bushing in the state where the vehicle is at curb weight and the wheels are in full contact with the ground.
- 1. Before installation, inspect the following items and replace any faulty part with a new one.
 - Check the rear lateral link assembly rear for damage and deformation.
 - Check the bushing for abnormal cracks, damage or fatigue.
- **2.** Install the rear lateral link assembly rear.

Caution:

- Insert the bolt from the front of the vehicle.
- While holding the bolt side, tighten the nut to the specified torque.

Tightening torque:

Refer to "COMPONENT" of "General Description" for the tightening torque. Ref. to REAR SUSPENSION Seneral Description COMPONENT > REAR SUSPENSION.

- 3. Install the rear wheels. The Ref. to WHEEL AND TIRE SYSTEM > Tire and Wheel > INSTALLATION.
- 4. Inspect the wheel alignment and adjust if necessary.

- Inspection: Ref. to FRONT SUSPENSION>Wheel Alignment>INSPECTION.
- Adjustment: Ref. to FRONT SUSPENSION>Wheel Alignment>ADJUSTMENT.
- **5.** Perform VSC (VDC) sensor midpoint setting mode. Ref. to VEHICLE STABILITY CONTROL>VSC (VDC) Control Module and Hydraulic Control Unit (VSCCM&H/U)>ADJUSTMENT > VSC (VDC) SENSOR MIDPOINT SETTING MODE.

REAR SUSPENSION > Rear Lateral Link (rear)

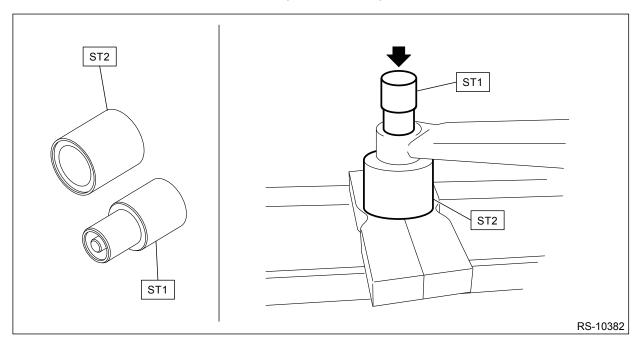
DISASSEMBLY



Remove the rubber bushing lateral link rear using ST1 and ST2.

Preparation tool:

ST1 & ST2: INSTALLER & REMOVER (20099AE010)



REAR SUSPENSION > Rear Lateral Link (rear)

ASSEMBLY

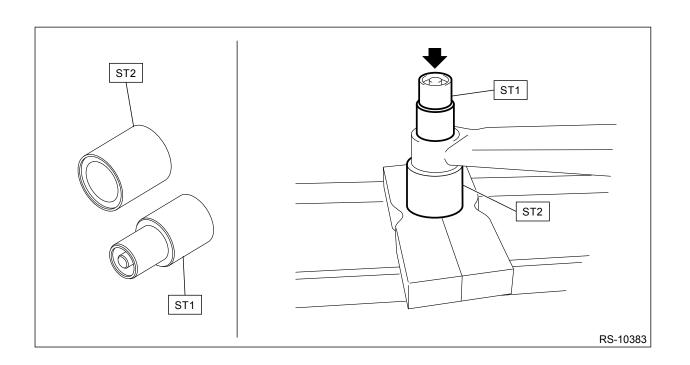
- 1. Before assembly, inspect the following items and replace any faulty part with a new one.
 - Check the rear lateral link assembly rear for damage and deformation.
 - Check the bushing for abnormal cracks, damage or fatigue.
- 2. Press-fit the rubber bushing lateral link rear using ST1 and ST2.

Caution:

Make sure to press the bushing straight in.

Preparation tool:

ST1 & ST2: INSTALLER & REMOVER (20099AE010)

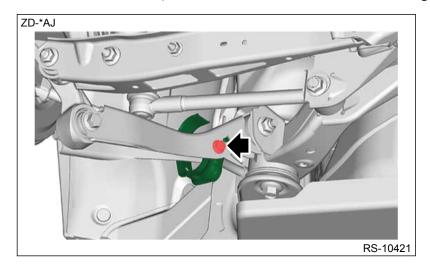


REAR SUSPENSION > Sub Frame

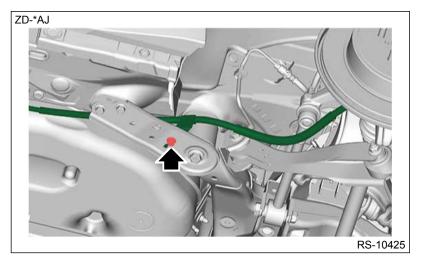
REMOVAL



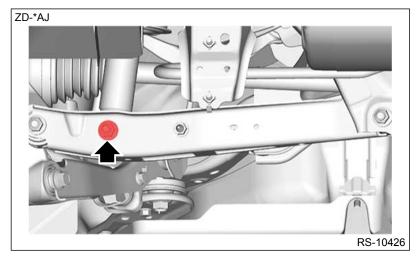
- 1. Release the parking brake.
- 2. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
- Release the shift lock and shift the select lever to the "N range". (AT model) <a>Ref. to CONTROL
 SYSTEMS>Select Lever>REMOVAL.
- 4. Remove the rear wheels. Ref. to WHEEL AND TIRE SYSTEM>Tire and Wheel>REMOVAL.
- **5.** Remove the fuel tank protector. Ref. to FUEL INJECTION (FUEL SYSTEMS)(H4DO)>Fuel Tank Protector>REMOVAL.
- 6. Remove the rear exhaust pipe. Ref. to EXHAUST(H4DO)>Rear Exhaust Pipe>REMOVAL.
- **7.** Remove the propeller shaft. Ref. to PROPELLER SHAFT / DRIVE SHAFT / AXLE>Propeller Shaft>REMOVAL.
- **8.** Remove the disc brake assembly rear and brake disc rear. Ref. to BRAKE>Rear Disc Rotor>REMOVAL.
- **9.** Remove the cable assembly hand brake from the parking lever. Ref. to PARKING BRAKE>Parking Brake Assembly (Rear Disc Brake)>REMOVAL.
- **10.** Remove the sensor sub assembly rear. Ref. to VEHICLE STABILITY CONTROL>Rear ABS Wheel Speed Sensor>REMOVAL.
- **11.**Remove the bolts, and then remove the bracket cable guide.



12. Remove the bolt and disconnect the parking brake cable bracket.



13. Remove the bolt and nut on the lower side of shock absorber assembly rear.



- **14.** Remove the stabilizer rear. Ref. to REAR SUSPENSION>Stabilizer>REMOVAL > STABILIZER.
- 15. Remove the rear suspension assembly.
 - (1) Support the rear suspension assembly using a transmission jack.

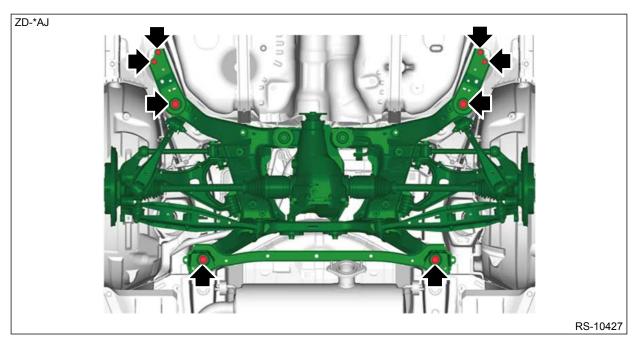
Note:

Since the rear suspension assembly is heavy, make sure that it is firmly supported so that it is level.

- (2) Remove the bolts, and remove the support sub frame front and the support sub frame rear.
- (3) Remove the rear suspension assembly.

Note:

While checking there is no dragging of harness, lower it slowly with a transmission jack.



16. As necessary, remove each part from the sub frame assembly rear.

- Trailing link assembly rear: Ref. to REAR SUSPENSION>Trailing Link>REMOVAL.
- Rear lateral link assembly front: Ref. to REAR SUSPENSION>Rear Lateral Link (front)>REMOVAL.
- Rear lateral link assembly rear: Rear Suspension Rear Lateral Link (rear) REMOVAL.
- Rear drive shaft: Ref. to PROPELLER SHAFT / DRIVE SHAFT / AXLE>Rear Drive Shaft>REMOVAL.
- Rear differential: Ref. to DIFFERENTIALS>Rear Differential>REMOVAL.
- Arm assembly rear upper: Ref. to REAR SUSPENSION>Upper Arm>REMOVAL.
- Rear differential mount bushing: <u>Ref. to DIFFERENTIALS>Rear Differential Mount Bushing>REPLACEMENT.</u>

REAR SUSPENSION > Sub Frame

INSTALLATION

Caution:

- For the non-reusable parts, always use new parts.
- Always tighten the bushing in the state where the vehicle is at curb weight and the wheels are in full contact with the ground.
- 1. Check the removed parts for wear, damage and crack, and repair or replace them if faulty.
- 2. Install each part to the sub frame assembly rear.
 - Trailing link assembly rear: Ref. to REAR SUSPENSION>Trailing Link>INSTALLATION.
 - Rear lateral link assembly front: Rear Suspension>Rear Lateral Link (front)>INSTALLATION.
 - Rear lateral link assembly rear: <a>Ref. to REAR SUSPENSION>Rear Lateral Link (rear)>INSTALLATION.
 - Rear drive shaft: <u>Ref. to PROPELLER SHAFT / DRIVE SHAFT / AXLE>Rear Drive</u> Shaft>INSTALLATION.

- Rear differential: Ref. to DIFFERENTIALS>Rear Differential>INSTALLATION.
- Arm assembly rear upper: <a> Ref. to REAR SUSPENSION>Upper Arm>INSTALLATION.
- Rear differential mount bushing: <a>Ref. to DIFFERENTIALS>Rear Differential Mount Bushing>REPLACEMENT.
- 3. Install the rear suspension assembly.
 - (1) Lift the rear suspension assembly using a transmission jack.

Note:

- Since the rear suspension assembly is heavy, make sure that it is firmly supported so that it is level.
- While checking there is no dragging of harness, raise it slowly with a transmission jack.
- (2) Install the support sub frame front and the support sub frame rear, and temporarily install the rear suspension assembly.

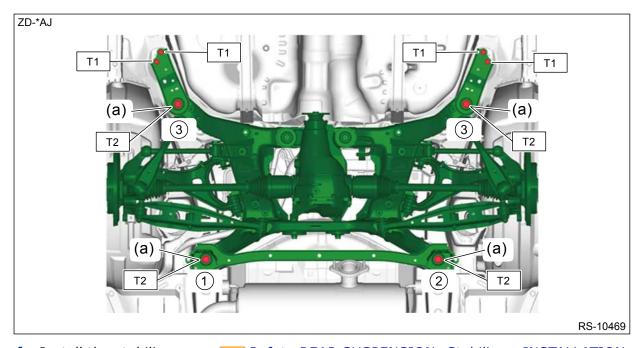
Caution:

Always use a new flange bolt (a).

- (3) Tighten the bolts in the numerical order as shown in the figure.
- (4) Tighten the support sub frame front.

Tightening torque:

T1: 70 N·m (7.1 kgf-m, 51.6 ft-lb) T2: 145 N·m (14.8 kgf-m, 106.9 ft-lb)



- 4. Install the stabilizer rear. Ref. to REAR SUSPENSION>Stabilizer>INSTALLATION > STABILIZER.
- **5.** Install the bolts and nuts on lower side of shock absorber assembly rear.

Tightening torque:

Nut side: 85 N·m (8.7 kgf-m, 62.7 ft-lb)

6. Install the parking brake cable bracket.

Tightening torque:

18 N·m (1.8 kgf-m, 13.3 ft-lb)

7. Install the bracket cable guide.

Tightening torque:

18 N·m (1.8 kgf-m, 13.3 ft-lb)

- **8.** Install the sensor sub assembly rear. Ref. to VEHICLE STABILITY CONTROL>Rear ABS Wheel Speed Sensor>INSTALLATION.
- **9.** Install the cable assembly hand brake to the parking lever. Ref. to PARKING BRAKE>Parking Brake Assembly (Rear Disc Brake)>INSTALLATION.
- **10.** Install the brake disc rear and the disk brake assembly rear. Ref. to BRAKE>Rear Disc Rotor>INSTALLATION.
- **11.**Install the propeller shaft. Ref. to PROPELLER SHAFT / DRIVE SHAFT / AXLE>Propeller Shaft>INSTALLATION.
- 12. Install the rear exhaust pipe. Ref. to EXHAUST(H4DO)>Rear Exhaust Pipe>INSTALLATION.
- **13.**Install the fuel tank protector. Ref. to FUEL INJECTION (FUEL SYSTEMS)(H4DO)>Fuel Tank Protector>INSTALLATION.
- 14. Install the rear wheels. Ref. to WHEEL AND TIRE SYSTEM>Tire and Wheel>INSTALLATION.
- **15.** Release the shift lock and shift the select lever to the "P range". (AT model) Ref. to CONTROL SYSTEMS>Select Lever>INSTALLATION.
- **16.** Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS > NOTE > BATTERY.
- **17.** Inspect the wheel alignment and adjust if necessary.
 - Inspection: Ref. to FRONT SUSPENSION>Wheel Alignment>INSPECTION.
 - Adjustment: Ref. to FRONT SUSPENSION>Wheel Alignment>ADJUSTMENT.
- **18.** Perform VSC (VDC) sensor midpoint setting mode. Ref. to VEHICLE STABILITY CONTROL>VSC (VDC) Control Module and Hydraulic Control Unit (VSCCM&H/U)>ADJUSTMENT > VSC (VDC) SENSOR MIDPOINT SETTING MODE.

REAR SUSPENSION > Stabilizer

REMOVAL

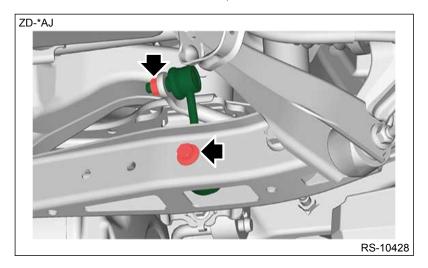


1. STABILIZER LINK

Caution:

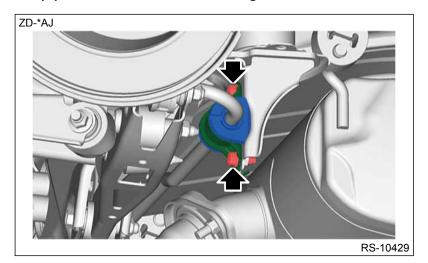
Be careful not to damage the boot of the ball joint.

1. Remove the bolts and nuts, and remove the stabilizer link rear.



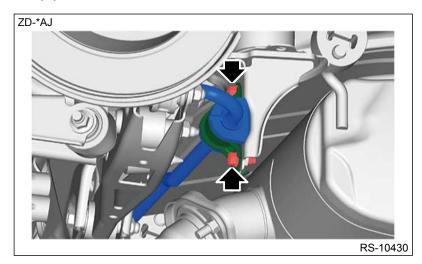
2. STABILIZER BUSHING

- 1. Remove the rubber bushing stabilizer rear.
 - (1) Remove the bolts and remove the clamp stabilizer.
 - (2) Remove the rubber bushing stabilizer rear.



3. STABILIZER

- 1. Disconnect the stabilizer link rear (upper part). Ref. to REAR SUSPENSION>Stabilizer>REMOVAL > STABILIZER LINK.
- 2. Remove the stabilizer rear.
 - (1) Remove the bolts and remove the clamp stabilizer.
 - (2) Remove the stabilizer rear.



REAR SUSPENSION > Stabilizer

INSTALLATION

1. STABILIZER LINK

Caution:

- For parts which are not reusable, always use new parts.
- Always tighten the connecting area of the stabilizer link rear and rear lateral link assembly rear in the state where the vehicle is at curb weight and the wheels are in full contact with the ground.
- Be careful not to damage the boot of the ball joint.
- **1.** Before installation, check the stabilizer link rear for damage.
- 2. Install the stabilizer link rear.

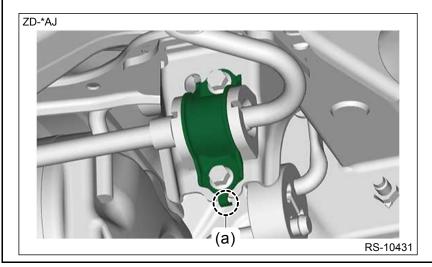
Tightening torque:

Refer to "COMPONENT" of "General Description" for the tightening torque. Ref. to REAR SUSPENSION>General Description>COMPONENT.

2. STABILIZER BUSHING

Caution:

- Install the rubber bushing stabilizer rear so that the slit does not shift to the right or left.
- Install so that the claw section (a) of the clamp stabilizer faces the bottom of the vehicle.



- 1. Before installation, check the rubber bushing stabilizer rear for abnormal cracks, fatigue or damage.
- **2.** Install the rubber bushing stabilizer rear.
- **3.** Install the clamp stabilizer.

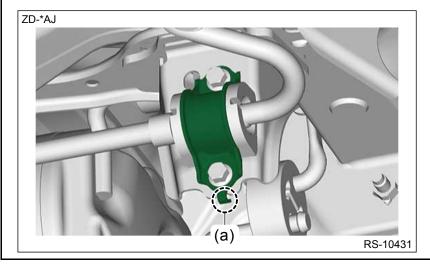
Tightening torque:

30 N·m (3.1 kgf-m, 22.1 ft-lb)

3. STABILIZER

Caution:

- For parts which are not reusable, always use new parts.
- Install the rubber bushing stabilizer rear so that the slit does not shift to the right or left.
- Install so that the claw section (a) of the clamp stabilizer faces the bottom of the vehicle.



- **1.** Before installation, inspect the following items and replace any faulty part with a new one.
 - Check the rubber bushing stabilizer rear for abnormal cracks, fatigue or damage.
 - Check the stabilizer link rear for damage.
- 2. Install the clamp stabilizer.

Tightening torque:

30 N·m (3.1 kgf-m, 22.1 ft-lb)

3. Install the stabilizer link rear (upper part).

Tightening torque:

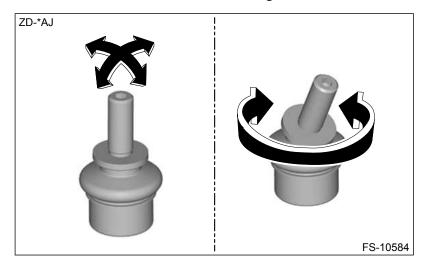
45 N·m (4.6 kgf-m, 33.2 ft-lb)

REAR SUSPENSION > Stabilizer

INSPECTION

1. STABILIZER LINK

- 1. Check that there is no deformation, cracks or other damages.
- 2. Check for excessive rusting.
- **3.** Move the stud as shown in the figure to check that there is no abnormal interference or play.



4. If fault is found in the inspection, replace the relevant part.

REAR SUSPENSION > Upper Arm

REMOVAL

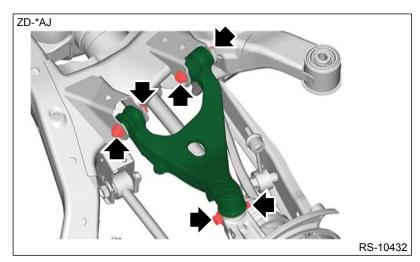




Caution:

Be careful not to damage the boot of the ball joint.

- **1.** Release the parking brake.
- 2. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS > NOTE > BATTERY.
- **3.** Release the shift lock and shift the select lever to the "N range". (AT model) Ref. to CONTROL SYSTEMS>Select Lever>REMOVAL.
- 4. Remove the rear wheels. Ref. to WHEEL AND TIRE SYSTEM>Tire and Wheel>REMOVAL.
- 5. Remove the rear suspension assembly. Ref. to REAR SUSPENSION>Sub Frame>REMOVAL.
- **6.** Remove the bolts and nuts, and remove the arm assembly rear upper.



REAR SUSPENSION > Upper Arm

INSTALLATION

Caution:

- For parts which are not reusable, always use new parts.
- Always tighten the bushing in the state where the vehicle is at curb weight and the wheels are in full contact with the ground.
- Do not apply grease, etc. to the ball stud shaft portion.
- Be careful not to damage the boot of the ball joint.
- 1. Before installation, inspect the following items and replace any faulty part with a new one.
 - Check the arm assembly rear upper for damage and deformation.
 - Check the bushing for abnormal cracks, damage or fatigue.
 - Check the boot on the ball joint for abnormal cracks, damage or fatigue.
- Install the arm assembly rear upper.

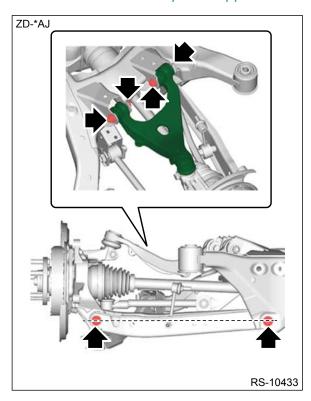
- (1) Make the installation sections of the rear lateral link assembly rear (the bolt on the rear axle housing side and the bolt on the sub frame assembly rear side) horizontal.
- (2) Install the arm assembly rear upper to the sub frame assembly rear.

Caution:

- Insert the front bolt from the rear of the vehicle.
- Insert the rear bolt from the front of the vehicle.
- While holding the bolt side, tighten the nut to the specified torque.

Tightening torque:

Arm assembly rear upper — sub frame assembly rear: 90 N·m (9.2 kgf-m, 66.4 ft-lb)



3. Connect the arm assembly rear upper and the rear axle housing.

Caution:

- Insert the bolt from the front of the vehicle.
- While holding the bolt side, tighten the nut to the specified torque.

Tightening torque:

Arm assembly rear upper — rear axle housing: 80 N·m (8.2 kgf-m, 59.0 ft-lb)

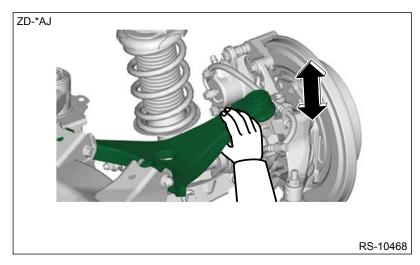
- 4. Install the rear suspension assembly. Ref. to REAR SUSPENSION>Sub Frame>INSTALLATION.
- **5.** Release the shift lock and shift the select lever to the "P range". (AT model) Ref. to CONTROL SYSTEMS>Select Lever>INSTALLATION.
- 6. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
- **7.** After the operation is completed, apply and release the parking brake five times and ensure that the brake operates normally.
- 8. Inspect the wheel alignment and adjust if necessary.
 - Inspection: Ref. to FRONT SUSPENSION>Wheel Alignment>INSPECTION.
 - Adjustment: Ref. to FRONT SUSPENSION > Wheel Alignment > ADJUSTMENT.
- **9.** Perform VSC (VDC) sensor midpoint setting mode. Ref. to VEHICLE STABILITY CONTROL>VSC

REAR SUSPENSION > Upper Arm

INSPECTION

1. ON THE VEHICLE INSPECTION

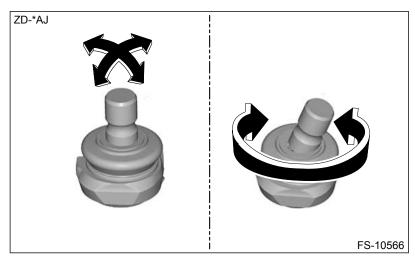
- 1. Check that there is no deformation, cracks or other damages.
- Check for excessive rusting.
- 3. Rock the arm assembly rear upper up and down to check the ball joint for looseness.



4. If fault is found in the inspection, replace the relevant part.

2. UNIT INSPECTION

1. Move the stud as shown in the figure to check that there is no abnormal interference or play.



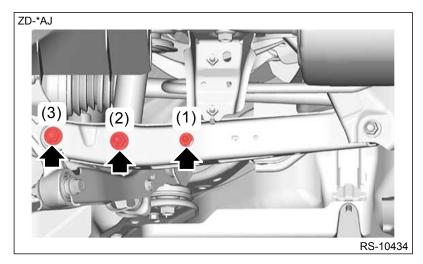
2. If fault is found in the inspection, replace the relevant part.

REAR SUSPENSION > Rear Shock Absorber

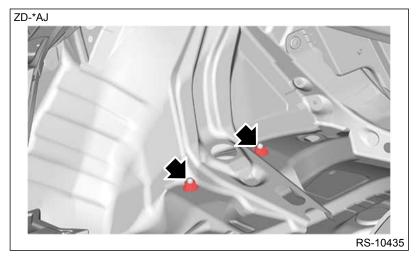
REMOVAL



- 1. Remove the trim panel trunk rear and the trunk trim panel side. Ref. to EXTERIOR/INTERIOR TRIM>Trunk Room Trim>REMOVAL.
- 2. Remove the rear wheels. Ref. to WHEEL AND TIRE SYSTEM>Tire and Wheel>REMOVAL.
- 3. Disconnect the rear lateral link assembly rear.
 - (1) Remove the bolt and nut on the lower side of stabilizer link rear.
 - (2) Remove the bolt and nut on the lower side of shock absorber assembly rear.
 - (3) Remove the bolt and nut, and disconnect the rear axle housing and the rear lateral link assembly rear.



4. Remove the nuts on the upper side of shock absorber assembly rear.



5. Lower the rear lateral link assembly rear, and remove the shock absorber assembly rear.

REAR SUSPENSION > Rear Shock Absorber

INSTALLATION

Caution:

- For parts which are not reusable, always use new parts.
- Always tighten the bushing in the state where the vehicle is at curb weight and the wheels are in full contact with the ground.
- 1. Install the shock absorber assembly rear.
 - (1) Lower the rear lateral link assembly rear, and place the shock absorber assembly rear in position.
 - (2) Install the nuts on the upper side of shock absorber assembly rear.

Tightening torque:

30 N·m (3.1 kgf-m, 22.1 ft-lb)

(3) Install the lower side of shock absorber assembly rear.

Tightening torque:

Nut side: 85 N·m (8.7 kgf-m, 62.7 ft-lb)

(4) Install the rear lateral link assembly rear.

Tightening torque:

Nut side: 80 N·m (8.2 kgf-m, 59.0 ft-lb)

(5) Install the lower side of stabilizer link rear.

Tightening torque:

Nut side: 38 N·m (3.9 kgf-m, 28.0 ft-lb)

- 2. Install the rear wheels. Ref. to WHEEL AND TIRE SYSTEM>Tire and Wheel>INSTALLATION.
- 3. Install the trunk trim panel side and the trim panel trunk rear. Ref. to EXTERIOR/INTERIOR TRIM>Trunk Room Trim>INSTALLATION.
- **4.** Inspect the wheel alignment and adjust if necessary.
 - Inspection: Ref. to FRONT SUSPENSION > Wheel Alignment > INSPECTION.
 - Adjustment: Ref. to FRONT SUSPENSION > Wheel Alignment > ADJUSTMENT.
- **5.** Perform VSC (VDC) sensor midpoint setting mode. Ref. to VEHICLE STABILITY CONTROL>VSC (VDC) Control Module and Hydraulic Control Unit (VSCCM&H/U)>ADJUSTMENT > VSC (VDC) SENSOR MIDPOINT SETTING MODE.

REAR SUSPENSION > Rear Shock Absorber

DISASSEMBLY





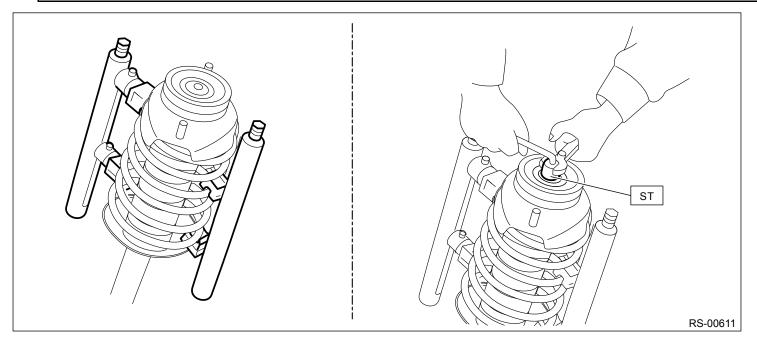
Caution:

- When installing the coil spring compressor to the coil spring rear, follow the operation manual accompanied with the coil spring compressor during operation.
- Do not use an impact wrench to compress the coil spring rear.
- **1.** Using a coil spring compressor, compress the coil spring rear.
- 2. Remove the mount shock absorber rear.

Note:

<Example of coil spring compressor installation>

The installing position of coil spring compressor varies depending on the coil spring rear shape and winding number.



- (1) Using a hexagon wrench, prevent the piston rod of shock absorber COMPL rear from turning.
- (2) Using the ST, remove the self-locking nut.

Preparation tool:

ST: STRUT MOUNT SOCKET (20399FG000)

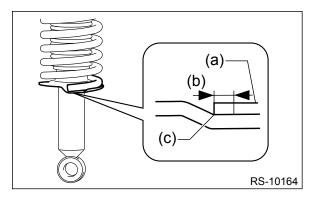
- (3) Remove the mount shock absorber rear from the shock absorber COMPL rear.
- **3.** Gradually decrease the compression pressure of compressor, and remove the coil spring rear.
- 4. Remove the rubber seat rear, the helper rear and the dust cover rear.

REAR SUSPENSION > Rear Shock Absorber

ASSEMBLY

Caution:

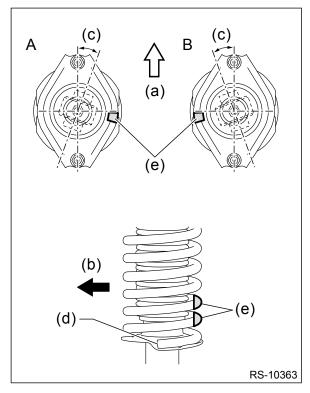
- For the non-reusable parts, always use new parts.
- When installing the coil spring compressor to the coil spring rear, follow the operation manual accompanied with the coil spring compressor during operation.
- Do not use an impact wrench to compress the coil spring rear.
- 1. Before assembly, check each part. Ref. to REAR SUSPENSION>Rear Shock Absorber>INSPECTION.
- 2. Install the helper rear and dust cover rear to the piston rod.
- **3.** Using a coil spring compressor, compress the coil spring rear.
- **4.** Install by aligning the edge surface of the coil spring rear with the stopper portion of the lower side spring seat.



- (a) Coil spring rear
- (b) 0 10 mm (0 0.39 in)
- (c) Spring seat stopper portion
- 5. Fully pull up the piston rod in the upward direction.
- 6. Install the mount shock absorber rear.
 - (1) Install the rubber seat rear.
 - (2) Temporarily install the mount shock absorber rear with new self-locking nuts.

Note:

Position the mount shock absorber as shown in the figure.



- A LH side
- B RH side
- (a) Front side of vehicle
- (b) Vehicle outside
- (c) $10^{\circ}\pm5^{\circ}$
- (d) End portion of coil spring rear

- (e) Identification paint (Install with the paint facing the vehicle inside.)
- (3) Using a hexagon wrench, prevent the piston rod of shock absorber COMPL rear from turning.
- (4) Using the ST, tighten the self-locking nut to the specified torque.

Preparation tool:

ST: STRUT MOUNT SOCKET (20399FG000)

Tightening torque:

25 N·m (2.5 kgf-m, 18.4 ft-lb)

7. Loosen the coil spring compressor while being careful that the coil spring rear and the spring seat seating surface are not misaligned.

REAR SUSPENSION > Rear Shock Absorber

INSPECTION

1. SHOCK ABSORBER COMPL REAR

- 1. Check for oil leaks.
- 2. Move the piston rod up and down to check that it operates smoothly without any hitch.
- **3.** Check the piston rod for runout using the dial gauge and magnet stand.
 - (1) Fix the outer shell.
 - (2) Extend the piston rod until it stops retracting, and set the dial gauge at the L position from the end of the piston rod.

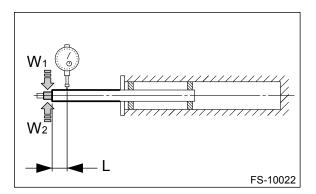
Measuring point:

L = 10 mm (0.39 in)

- (3) While applying a force of W_1 [20 N (2 kgf, 4 lbf)] to the arrowed section, read the dial gauge indication P_1 .
- (4) While applying a force of W_2 [20 N (2 kgf, 4 lbf)] from the opposite side of W_1 , read the dial gauge indication P_2 .

Play limit (P1+P2):

0.8 mm (0.031 in)



4. Replace the shock absorber COMPL rear if a fault is found in the inspection or limit value is exceeded.

2. MOUNT SHOCK ABSORBER REAR

Check the rubber part for deformation, cracks or deterioration, and then replace it with a new part if defective.

3. COIL SPRING REAR

If cracks, damage or deformation are found on the spring, replace it with a new part.

4. HELPER REAR

If major cracks or damage are found, replace it with a new part.

5. DUST COVER REAR

If major cracks or damage are found, replace it with a new part.

6. RUBBER SEAT REAR

If major cracks or damage are found, replace it with a new part.

REAR SUSPENSION > Rear Shock Absorber

DISPOSAL

Refer to "Front Strut" in "FRONT SUSPENSION" section for disposal procedures. Ref. to FRONT SUSPENSION Front Strut DISPOSAL.

REAR SUSPENSION > General Diagnostic Table

NOTE

For general diagnostic table, refer to "General Diagnostic Table" in "FRONT SUSPENSION" section. Ref. to FRONT SUSPENSION>General Diagnostic Table>INSPECTION.